

Mathematical Biosciences

an international journal

Volume 112 1992

CARLOS A. LAZALDE AND LLOYD BARR (Urbana, Illinois)	
Four-State Models and Regulation of Contraction of Smooth Muscle. I. Physical Considerations, Stability, and Solutions	1
CARLOS A. LAZALDE AND LLOYD BARR (Urbana, Illinois)	
Four-State Models and Regulation of Contraction of Smooth Muscle. II. Properties of the Solutions and Identification	31
ILIAS IAKOVIDIS AND RAMESH M. GULRAJANI (Montreal, Quebec)	
Improving Tikhonov Regularization with Linearly Constrained Optimization: Application to the Inverse Epicardial Potential Solution	55
ODD ARILD OLSEN AND JENS GLAD BALCHEN (Trondheim, Norway)	
Structured Modeling of Fish Physiology	81
CARLA WOFSY (Albuquerque, New Mexico) AND BYRON GOLDSTEIN (Los Alamos, New Mexico)	
Interpretation of Scatchard Plots for Aggregating Receptor Systems	115
TAKENORI TAKADA (Sapporo, Japan) AND HISAO NAKAJIMA (Kyoto, Japan)	
An Analysis of Life History Evolution in Terms of the Density-Dependent Lefkovich Matrix Model	155

NOTES

C. PAHL-WOSTL (Dübendorf, Switzerland)	
The Possible Effects of Aggregation on the Quantitative Interpretation of Flow Patterns in Ecological Networks	177
ROBERT E. ULANOWICZ AND WILFRIED F. WOLFF (Solomons, Maryland)	
Nature Is Not Uniform	185
JOHN A. JACQUEZ AND GRACE L. YANG	
Preface to the Issue	187
FRANK G. BALL (Nottingham, England) AND JOHN A. RICE (Berkeley, California)	
Stochastic Models for Ion Channels: Introduction and Bibliography	189

GOPINATH KALLIANPUR (Chapel Hill, North Carolina)	
Stochastic Differential Equation Models for Spatially	
Distributed Neurons and Propagation of Chaos for	
Interacting Systems . . . . .	.207
MICHAEL W. LEVINE (Chicago, Illinois)	
Modeling the Variability of Firing Rate of Retinal	
Ganglion Cells . . . . .	.225
SHUNSUKE SATO AND SHINJI DOI (Osaka, Japan)	
Response Characteristics of the BVP Neuron Model to	
Periodic Pulse Inputs . . . . .	.243
L. LE CAM (Berkeley, California)	
Stochastic Models of Lesion Induction and Repair in Yeast. . . . .	.261
RAINER K. SACHS (Berkeley, California),	
PEI-LI CHEN (Carbondale, Illinois), AND	
PHILIP J. HAHNFELDT AND LYNN R. HLATKY (Boston, Massachusetts)	
DNA Damage Caused by Ionizing Radiation. . . . .	.271
GRACE L. YANG (College Park, Maryland)	
Cell Survival Probability Under Ionizing Radiation . . . . .	.305
RON LUNDSTROM (Waltham, Massachusetts),	
SIMON TAVARÉ (Los Angeles, California), AND	
R. H. WARD (Salt Lake City, Utah)	
Modeling the Evolution of the Human Mitochondrial Genome . . . . .	.319
ANNOUNCEMENT. . . . .	.337
1992 AUTHOR INDEX . . . . .	.339
1992 SUBJECT INDEX . . . . .	.341

